

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF HAWAII

In the Matter of

PUBLIC UTILITIES COMMISSION

Instituting a Proceeding to Investigate the
Implementation Of Feed-in Tariffs.

DOCKET NO. 2008-0273

PUBLIC UTILITIES
COMMISSION

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**BLUE PLANET FOUNDATION'S RESPONSE TO
APPENDICES A AND C (NON-LEGAL QUESTIONS) TO THE SCOPING PAPER
SUBMITTED BY THE STATE OF HAWAII PUBLIC UTILITIES COMMISSION,
"FEED-IN TARIFFS: BEST DESIGN FOCUSING HAWAII'S INVESTIGATION"
(NATIONAL REGULATORY RESEARCH INSTITUTE, DECEMBER 2008)**

AND

CERTIFICATE OF SERVICE

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HAWAII'S INVESTIGATION" (NATIONAL REGULATORY
RESEARCH INSTITUTE, DECEMBER 2008)**

Blue Planet Foundation ("Blue Planet"), by and through its attorneys Schlack Ito Lockwood Piper & Elkind, hereby submits its response to Appendices A and C to the Scoping Paper submitted by the State of Hawaii Public Utilities Commission ("Commission") titled, "Feed-In Tariffs: Best Design Focusing Hawaii's Investigation" (National Regulatory Research Institute, December 2008) ("Scoping Paper").

As these responses are provided at a relatively early stage in this proceeding, they are necessarily preliminary and subject to future revision or modification based upon further discovery and additional facts and information. Blue Planet accordingly reserves the right to supplement, revise and/or modify positions taken and/or the substance of its responses below in the course of this proceeding.

I. RESPONSE TO APPENDIX A

Appendix A, "Cost Data Forms," calls for information concerning typical costs (in 2009 dollars) and operations with regard to renewable energy development projects in Hawaii. *Id.* Blue Planet is not a renewable energy project developer, but rather is a public

interest organization dedicated to supporting and facilitating the adoption of alternative and renewable energy sources in Hawaii to encourage Hawaii's swift transition to a clean energy economy, promote Hawaii as a global leader in renewable energy, and mitigate climate change impacts in Hawaii. Although Appendix A appears to call for "typical" rather than project-specific information, such information is not readily available to Blue Planet and therefore Blue Planet is unable to respond to Appendix A. Blue Planet respectfully reserves the right to comment on the general issues raised in Appendix A in the course of this proceeding.

II. RESPONSE TO APPENDIX C (NON-LEGAL QUESTIONS)

Other Threshold Issues

- 4. Feed-in tariffs, if approved by the Commission, would join an array of legislative and regulatory initiatives to boost production of renewables in Hawaii. Those initiatives include PURPA, the renewable portfolio standard, net metering and various distributed generation actions. Are there overlaps, redundancies, gaps among these multiple initiatives? What is the independent purpose of each of these, in relation to the others?**

RESPONSE:

Blue Planet submits that the purposes of these various legislative and regulatory initiatives are now appropriately viewed in accordance with the primary goal of the Energy Agreement, which is for the State of Hawaii to "move decisively and irreversibly away from imported fossil fuel for electricity and transportation and towards indigenously produced renewable energy and an ethic of energy efficiency." "Energy Agreement Among the State of Hawaii, Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs, and the Hawaiian Electric Companies" dated Oct. 20, 2008 at 1 ("Energy Agreement"). An FIT can complement efforts to encourage distributed generation and related State energy policy objectives.

One of the primary purposes of a feed-in tariff ("FIT") may be to assist the utilities in achieving the requirements under the Renewable Portfolio Standards set forth in Part V of chapter 269, Hawaii Revised Statutes ("RPS"). Use of an FIT in Hawaii to meet RPS goals would be consistent with similar efforts in California and Minnesota. The California Energy Commission's 2007 Integrated Energy Policy Report, for example, recommended that the California Energy Commission collaborate with the California Public Utilities Commission to develop a report to examine the feasibility of establishing a feed-in tariff for projects greater than 20 megawatts in order to meet California renewable energy goals. See California Energy Commission, *2007 Integrated Energy Policy Report* (CEC-100-2007-008-CMF) at 147, available at http://www.energy.ca.gov/2007_energypolicy/index.html.

Process and General Feed-in Tariff Issues

- 5. Please explain the criticality of completing the "best-design" phase of this investigation by March 2009 and having project-based FiTs in place by July 2009 as called for in the Agreement.**

RESPONSE:

Blue Planet believes it is critical to establish an FIT in the period of time called for by the Energy Agreement for the same economic, environmental, legal, and regulatory reasons set forth in the Energy Agreement in support of such an expedited time frame. Further, it is critical to resolve the FIT issue and have an agreement in place as to the FIT final form to remove the significant uncertainty that currently exists with many of the clean energy developers. Projects may be delayed or canceled as developers wait to see if the benefits are different under the final form of the FIT. Moving quickly to dispose of the FIT issue would reduce such delay.

6. Please explain why project-based FiTs are superior to other methods that require a utility to purchase renewable electricity.

RESPONSE:

In general, FITs may be superior to other methods due to reduced transaction costs which result in a more efficient market for clean energy. Other economic and environmental benefits and advantages of FITs are set forth in numerous studies and publications, including but not limited to the following: (1) Sir Nicholas Stern, *Stern Review Report on the Economics of Climate Change* at 366-67, available at http://www.hm-treasury.gov.uk/stern_review_report.htm; (2) International Energy Association, *Deploying Renewables: Executive Summary* at 17-19, available at <http://www.iea.org/Textbase/npsum/DeployRenew2008SUM.pdf>; and (3) Ernst & Young, *Renewable Energy Country Attractiveness Indices* (2008) at 13, available at [http://www.ey.com/Global/assets.nsf/International/Industry_Uilities_Renewable_energy_country_attractiveness_indices/\\$file/Industry_Uilities_Renewable_energy_country_attractiveness_indices.pdf](http://www.ey.com/Global/assets.nsf/International/Industry_Uilities_Renewable_energy_country_attractiveness_indices/$file/Industry_Uilities_Renewable_energy_country_attractiveness_indices.pdf).

In addition to the foregoing, the benefits an FIT would offer to a renewable electricity developer and producer include reduction of project developer costs, risks and complexity without significantly increasing ratepayer cost. KEMA, Inc., "HECO Feed-in Tariff Program Plan" (Dec. 2008) at 1. FITs reduce developer cost and risk because they are standard offers available without recourse to costly and lengthy competitive processes, resulting in lower development costs, a reduced rate of contract failure, and an increased ability for small projects to develop renewable energy systems. FITs also create a high degree of investor security, lower financing costs, and may in Hawaii generate savings insofar as generation costs for certain technologies may be below current avoided cost levels. *Id.* at 1-2.

- 7. Please quantify the costs over avoided costs of an open-ended PBFiT program assuming the utility meets the RPS goals set forth in the Agreement.**

RESPONSE:

Blue Planet is unable to quantify such costs for purposes of this response, but notes that it is possible that the cost over avoided cost may decline over time. *See, e.g., Caisse des Depots Climate Report, Development of Renewable Energies: What Contribution from the Climate Market?* (Dec. 2008) at 16, available at http://www.caissedesdepots.fr/IMG/pdf_08-12_Climate_Report_no16_-_Renewable_energy_EN-2.pdf.

- 8. Please quantify the benefits of lowering oil imports, increasing energy security, and increasing both jobs and tax base for the state mentioned in the Agreement.**

RESPONSE:

In very general terms, at a cost of \$60 per barrel for oil (the approximate average cost in 2008), Hawaii spends approximately \$3 billion outside the State on imported oil. Reducing this amount would likely increase the amount of money available to spend within Hawaii's economy. Further quantification of the general economic benefits of FITs is available in the following reports: (1) Sir Nicholas Stern, *Stern Review Report on the Economics of Climate Change* at 366-67, available at http://www.hm-treasury.gov.uk/stern_review_report.htm; (2) International Energy Association, *Deploying Renewables: Executive Summary* at 17-19, available at <http://www.iea.org/Textbase/npsum/DeployRenew2008SUM.pdf>; and (3) Ernst & Young, *Renewable Energy Country Attractiveness Indices* (2008) at 13, available at [http://www.ey.com/Global/assets.nsf/International/Industry_Uilities_Renewable_energy_country_attractiveness_indices/\\$file/Industry_Uilities_Renewable_energy_country_attractiveness_indices.pdf](http://www.ey.com/Global/assets.nsf/International/Industry_Uilities_Renewable_energy_country_attractiveness_indices/$file/Industry_Uilities_Renewable_energy_country_attractiveness_indices.pdf).

9. **Is the goal to encourage as much use of renewable resources as possible as soon as possible, or is it to encourage the orderly introduction of renewable resources based upon cost effectiveness?**

RESPONSE:

These goals are not mutually exclusive. Insofar as the primary goal of the Energy Agreement is for the State of Hawaii to “move decisively and irreversibly away from imported fossil fuel for electricity and transportation and towards indigenously produced renewable energy and an ethic of energy efficiency” *id.* at 1, Blue Planet submits that the goal is to encourage as much use of renewable resources as possible as soon as possible. This goal is compatible, however, with the orderly introduction of renewable resources and due consideration of “cost effectiveness” considerations.

10. **How long a period should exist between mandatory Commission reviews of the PBFiT?**

RESPONSE:

Mandatory Commission review should occur within a period of not more than two (2) years following implementation of the FIT. Blue Planet notes that criteria for the review should include whether and the extent to which the FIT is robust enough to meet energy policy goals, in addition to cost-related factors. It is also recommended that the evaluation be based upon actual renewable energy produced, rather than renewable energy under contract.

PBFiT General Design Issues

11. **Do each of the technologies listed as a renewable resource in the RPS legislation require a PBFiT?**

RESPONSE:

Yes. At this time, Blue Planet supports eventual development of an FIT for each renewable energy source identified in the RPS statute. *See* Haw. Rev. Stat. § 269-91.

12. Should PBFiTs for certain technologies be established now while others are deferred?

RESPONSE:

Yes. Blue Planet supports immediate development of an FIT for renewable energy from wind and solar resources, but concurs that deferral of FITs for other technologies may be necessary and appropriate. Blue Planet respectfully reserves the right to further comment on the proposed deferral of specific technologies in the course of this proceeding.

13. Should the Commission cap purchases under PBFiTs? If yes, what is the maximum amount? Should individual caps be set for each technology? What period should the cap cover? What is the measurement for the cap (e.g., dollars, percent of sales, kW, or kWh)?

RESPONSE:

It is unclear at this time whether the Commission should cap purchases under an FIT. In general, Blue Planet does not support a cap on the FIT because the absence of a cap may better stimulate renewable energy production and expeditiously achieve the goals of the Energy Agreement. In addition, the absence of a cap may reduce costs associated with "gaming" and related potential abuses of the FIT system. A cap on photovoltaic production is a particular concern due to the relatively high costs associated with that technology.

Due to the relatively small size of each island grid and the lack of interconnection between the grids, however, Blue Planet acknowledges the potential necessity for the FIT to incorporate certain caps. Blue Planet suggests that any such cap should be a kW hour cap based on actual, rather than projected, production.

- 14. What limitations exist for integrating renewable resources onto the grid? Should these limits affect the PBFIT design or caps, or are they just another cost that developers must consider?**

RESPONSE:

Blue Planet respectfully reserves the right to comment on the general issues raised by this question in the course of this proceeding.

Specific Tariff Design Issues

- 15. How long should the Commission set for the PBFiT's term of obligation? Should it be different for different technologies? Is there a common basis (e.g., a conservative estimate of expected useful life) for establishing the term of obligation? On what basis should a utility pay for electricity after the term expires?**

RESPONSE:

Blue Planet submits that, in general, the Commission should consider twenty year terms for most if not all technologies. It is well established that Germany has experienced remarkable success using FITs; these FITs have a twenty year term. *See* Scoping Paper at 22. Spain's FIT has no limit on its term – it continues indefinitely, provided the renewable energy producer continues to generate power. *Id.* Terms shorter than twenty years appear unlikely to achieve the goals of the Energy Agreement.

- 16. Should PBFiTs require the utility to purchase the project's gross or net output at the PBFiT price?**

RESPONSE:

The FIT must require the utility to purchase a project's gross output at the FIT price.

- 17. How should the utility determine the price paid for renewable energy not covered by a PBFiT (e.g., purchases above the cap or beyond the term of obligation)?**

RESPONSE:

Blue Planet respectfully reserves the right to comment on the general issues raised by this question in the course of this proceeding.

18. What inflation adjustment, if any, should the PBFiT include, using what base and indexes?

RESPONSE:

At this time, Blue Planet recommends following the French model, which is 60-80% of CPI. If the Commission opts for no inflation adjustment, the FiT rate must be higher initially. Blue Planet respectfully reserves the right to comment on the general issues raised by this question in the course of this proceeding.

19. What milestones (e.g., commercial operations) should the Commission set to determine eligibility for the PBFiT? Are Hawaii's RPS statute requirements an eligibility requirement? Should utility affiliates be eligible to receive the PBFiT price?

RESPONSE:

Blue Planet respectfully reserves the right to comment on the general issues raised by this question in the course of this proceeding.

20. Please comment on the need for stepped tariffs based upon location, size, fuel mix, and output.

RESPONSE:

Blue Planet believes stepped tariffs may be appropriate, in particular for wind energy in order to encourage geographic distribution of wind production.

21. Under what circumstances should the PBFiT price be time-differentiated?

RESPONSE:

Blue Planet respectfully reserves the right to comment on the general issues raised by this question in the course of this proceeding.

- 22. How highly leveraged (i.e., bearing how much debt compared to equity) are these projects?**

RESPONSE:

Blue Planet respectfully reserves the right to comment on the general issues raised by this question in the course of this proceeding.

- 23. Does a PBFiT create a financing environment through a reliable revenue stream from the ratepayer to the investor, allowing for greater leverage and thus lower cost financing than would be available under an avoided-cost tariff?**

RESPONSE:

Yes. An FIT may result in lower cost financing due to the predictable or reliable revenue stream.

- 24. If the PBFiTs are to encourage early development of resources, does the reasonable return need to be set higher for these early tariffs? Are there reasons other than encouraging early development to set the profit margin higher, such as risks associated with early implementation? Is this true across all project classes?**

RESPONSE:

The rate of return necessary to attract capital is a complex question, in part because it implicates both economic and financial analyses. Given the policy objectives of the Energy Agreement, Blue Planet submits that economic analyses related to the creation and stimulation of a market for renewable energy in Hawaii should generally take priority over the short-term financial considerations of utilities or renewable energy producers. The goal of the FIT, consistent with the Energy Agreement, is to create a new market for renewable energy in Hawaii.

- 25. Does the current "credit crunch" affect the financing costs, including expected profits by equity investors?**

RESPONSE:

Blue Planet respectfully reserves the right to comment on the general issues raised by this question in the course of this proceeding.

Related Issues

- 26. Please provide a quantitative analysis demonstrating the public interest aspect of the concept that 10% of the utility's purchases under the feed-in tariff PPA should be included in the utility's rate base through 2015. In addition to the overall prudence of the rate base recommendation, please address the 10% and 2015 date included in the Agreement.**

RESPONSE:

Blue Planet respectfully reserves the right to comment on the general issues raised by this question in the course of this proceeding.

- 27. What is the appropriate rate of return for the PBFiT portion of rate base that consists of a mandated purchase with guaranteed recovery and no capital outlay?**

RESPONSE:

Blue Planet respectfully reserves the right to comment on the general issues raised by this question in the course of this proceeding.

- 28. Are there preferable utility incentives, other than putting PBFiT revenues into the rate base, to encourage the development of renewable resources?**

RESPONSE:

Blue Planet submits that FIT revenues should be included in the rate base.

- 29. Should the PBFiT require developers to assign credits (e.g., investment tax credits, renewable energy credits, and carbon credits) earned from a project to the purchasing utility as a condition of receiving payments under the PBFiT? If not, how should these credits be included in the estimation of a typical project's cost?**

RESPONSE:

Blue Planet respectfully reserves the right to comment on the general issues raised by this question in the course of this proceeding.

DATED: Honolulu, Hawaii, January 26, 2009.



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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this date a copy of the foregoing document was duly served upon the following individuals by placing a copy of same in the United States Mail, postage prepaid, or by electronic mail, as follows:

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